



## SEQUENCE LISTING

<110> HAYNES, BARTON F.  
LIAO, HUA-XIN

<120> SEVERE ACUTE RESIRATORY SYNDROME

<130> 1579-1045

<140> 10/553,844

<141> 2004-05-10

<150> PCT/US04/014512

<151> 2004-05-10

<150> 60/468,644

<151> 2003-05-08

<160> 39

<170> PatentIn Ver. 3.3

<210> 1

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 1

Thr	Thr	Phe	Asp	Asp	Val	Gln	Ala	Pro	Asn	Tyr	Thr	Gln	His	Thr	Ser
1				5					10					15	

Ser	Met	Arg	Gly	Val	Tyr	Tyr	Pro	Asp	Glu	Ile	Phe	Arg	Ser	Asp	Thr
			20					25					30		

<210> 2

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 2

Phe	Lys	Asp	Gly	Ile	Tyr	Phe	Ala	Ala	Thr	Glu	Lys	Ser	Asn	Val	Val
1				5					10					15	

Arg	Gly	Trp	Val	Phe	Gly	Ser	Thr	Met	Asn	Asn	Lys	Ser	Gln	Ser
			20					25					30	

<210> 3  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 3  
 Asn Ser Thr Asn Val Val Ile Arg Ala Cys Asn Phe Glu Leu Cys Asp  
 1 5 10 15  
 Asn Pro Phe Phe Ala Val Ser Lys Pro Met Gly Thr Gln Thr His  
 20 25 30

<210> 4  
 <211> 28  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 4  
 Phe Glu Tyr Ile Ser Asp Ala Phe Ser Leu Asp Val Ser Glu Lys Ser  
 1 5 10 15  
 Gly Asn Phe Lys His Leu Arg Glu Phe Val Phe Lys  
 20 25

<210> 5  
 <211> 42  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 5  
 Asp Val Ser Glu Lys Ser Gly Asn Phe Lys His Leu Arg Glu Phe Val  
 1 5 10 15  
 Phe Lys Asn Lys Asp Gly Phe Leu Tyr Val Tyr Lys Gly Tyr Gln Pro  
 20 25 30  
 Ile Asp Val Val Arg Asp Leu Pro Ser Gly  
 35 40

<210> 6  
 <211> 24  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 6  
 Lys Gly Tyr Gln Pro Ile Asp Val Val Arg Asp Leu Pro Ser Gly Phe  
           1                  5                  10                  15

Asn Thr Leu Lys Pro Ile Phe Lys  
                   20

<210> 7  
 <211> 36  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 7  
 Phe Ser Pro Ala Gln Asp Ile Trp Gly Thr Ser Ala Ala Ala Tyr Phe  
           1                  5                  10                  15

Val Gly Tyr Leu Lys Pro Thr Thr Phe Met Leu Lys Tyr Asp Glu Asn  
                   20                  25                  30

Gly Thr Ile Thr  
                   35

<210> 8  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 8  
 Lys Tyr Asp Glu Asn Gly Thr Ile Thr Asp Ala Val Asp Cys Ser Gln  
           1                  5                  10                  15

Asn Pro Leu Ala Glu Leu Lys  
                   20

<210> 9  
 <211> 36  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 9

Phe Ser Pro Ala Gln Asp Ile Trp Gly Thr Ser Ala Ala Ala Tyr Phe  
1 5 10 15

Val Gly Tyr Leu Lys Pro Thr Thr Phe Met Leu Lys Tyr Asp Glu Asn  
20 25 30

Gly Thr Ile Thr  
35

<210> 10

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 10

Phe Val Val Lys Gly Asp Asp Val Arg Gln Ile Ala Pro Gly Gln Thr  
1 5 10 15

Gly Val Ile Ala Asp Tyr Asn Tyr Lys Leu Pro Asp Asp Phe Met  
20 25 30

<210> 11

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 11

Asn Thr Arg Asn Ile Asp Ala Thr Ser Thr Gly Asn Tyr Asn Tyr Lys  
1 5 10 15

Tyr Arg Tyr Leu Arg His Gly Lys Leu Arg Pro Phe Glu Arg Asp Ile  
20 25 30

Ser Asn

<210> 12

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 12

Phe	Ser	Pro	Asp	Gly	Lys	Pro	Cys	Thr	Pro	Pro	Ala	Leu	Asn	Cys	Tyr
1				5				10						15	
Trp	Pro	Leu	Asn	Asp	Tyr	Gly	Phe	Tyr	Thr	Thr	Thr	Gly	Ile	Gly	
			20					25					30		

<210> 13

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 13

Pro	Lys	Leu	Ser	Thr	Asp	Leu	Ile	Lys	Asn	Gln	Cys	Val	Asn	Phe	Asn
1				5				10						15	
Phe	Asn	Gly	Leu	Thr	Gly	Thr	Gly	Val	Leu	Thr	Pro	Ser	Ser	Lys	Arg
			20					25					30		

Phe Gln

<210> 14

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 14

Thr	Pro	Ser	Ser	Lys	Arg	Phe	Gln	Pro	Phe	Gln	Gln	Phe	Gly	Arg	Asp
1				5				10					15		
Val	Ser	Asp	Phe	Thr	Asp	Ser	Val	Arg	Asp	Pro	Lys	Thr	Ser	Glu	
			20					25					30		

<210> 15

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

&lt;400&gt; 15

Thr Asn Ala Ser Ser Glu Val Ala Val Leu Tyr Gln Asp Val Asn Cys  
 1 5 10 15

Thr Asp Val Ser Thr Ala Ile His Ala Asp Gln Leu Thr Pro Ala Trp  
 20 25 30

Arg Ile Tyr Ser Thr Gly Asn  
 35

&lt;210&gt; 16

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic peptide

&lt;400&gt; 16

Glu His Val Asp Thr Ser Tyr Glu Cys Asp Ile Pro Ile Gly Ala Gly  
 1 5 10 15

Ile Cys Ala Ser Tyr His Thr Val Ser Leu Leu Arg Ser Thr Ser Gln  
 20 25 30

Lys Ser Ile  
 35

&lt;210&gt; 17

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic peptide

&lt;400&gt; 17

Glu His Val Asp Thr Ser Tyr Glu Cys Asp Ile Pro Ile Gly Ala Gly  
 1 5 10 15

Ile Cys Ala Ser Tyr His Thr Val Ser Leu Leu Arg Ser Thr Ser Gln  
 20 25 30

Lys Ser Ile  
 35

&lt;210&gt; 18

&lt;211&gt; 40

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 18

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Leu Lys Pro Thr Lys Arg Ser Phe Ile Glu Asp Leu Leu Phe Asn Lys
 1           5           10           15

Val Thr Leu Ala Asp Ala Gly Phe Met Lys Gln Tyr Gly Glu Cys Leu
          20           25           30

Gly Asp Ile Asn Ala Arg Asp Leu
          35           40

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<210> 19

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 19

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Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala Ile Ser Gln Ile
 1           5           10           15

Gln Glu Ser Leu Thr Thr Thr Ser Thr Ala Leu Gly Lys Leu Gln Asp
          20           25           30

Val Val Asn Gln Asn Ala Gln
          35

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<210> 20

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 20

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Ser Lys Arg Val Asp Phe Cys Gly Lys Gly Tyr His Leu Met Ser Phe
 1           5           10           15

Pro Gln Ala Ala Pro His Gly Val Val Phe Leu His Val Thr Tyr Val
          20           25           30

Pro Ser Gln Glu Arg Asn Phe
          35

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<210> 21  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 21  
 Glu Gly Lys Ala Tyr Phe Pro Arg Glu Gly Val Phe Val Phe Asn Gly  
   1                  5                  10                  15  
 Thr Ser Trp Phe Ile Thr Gln Arg Asn Phe Phe Ser Pro  
                   20                  25

<210> 22  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 22  
 Asp Pro Leu Gln Pro Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys  
   1                  5                  10                  15  
 Tyr Phe Lys Asn His Thr Ser Pro Asp Val Asp Leu Gly Asp Ile Ser  
                   20                  25                  30  
 Gly

<210> 23  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 23  
 Gln Lys Glu Ile Asp Arg Leu Asn Glu Val Ala Lys Asn Leu Asn Glu  
   1                  5                  10                  15  
 Ser Leu Ile Asp Leu Gln Glu Leu Gly Lys Tyr Glu Gln Tyr  
                   20                  25                  30

<210> 24  
 <211> 41  
 <212> PRT  
 <213> Artificial Sequence



<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 24

Leu Thr Val Leu Pro Pro Leu Leu Thr Asp Asp Met Ile Ala Ala Tyr  
1 5 10 15

Thr Ala Ala Leu Val Ser Gly Thr Ala Thr Ala Gly Trp Thr Phe Gly  
20 25 30

Ala Gly Ala Ala Leu Gln Ile Pro Phe  
35 40

<210> 25

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 25

Ala Met Gln Met Ala Tyr Arg Phe Asn Gly Ile Gly Val Thr Gln Asn  
1 5 10 15

Val Leu Tyr Glu Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala  
20 25 30

Ile Ser Gln Ile Gln Glu Ser Leu  
35 40

<210> 26

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 26

Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys Tyr Phe Lys Asn His  
1 5 10 15

Thr Ser Pro Asp Val Asp Leu Gly Asp Ile Ser Gly Ile Asn Ala Ser  
20 25 30

Val Val

<210> 27  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 27  
 Asn Ile Gln Lys Glu Ile Asp Arg Leu Asn Glu Val Ala Lys Asn Leu  
 1 5 10 15  
 Asn Glu Ser Leu Ile Asp Leu Gln Glu Leu Gly Lys Tyr Glu Gln Tyr  
 20 25 30  
 Ile Lys Trp Pro Trp  
 35

<210> 28  
 <211> 27  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 28  
 Asp Ser Thr Asp Asn Asn Gln Asn Gly Gly Arg Asn Gly Ala Arg Pro  
 1 5 10 15  
 Lys Gln Arg Arg Pro Gln Gly Leu Pro Asn Asn  
 20 25

<210> 29  
 <211> 35  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 29  
 Gly Ser Arg Gly Gly Ser Gln Ala Ser Ser Arg Ser Ser Ser Arg Ser  
 1 5 10 15  
 Arg Gly Asn Ser Arg Asn Ser Thr Pro Gly Ser Ser Arg Gly Asn Ser  
 20 25 30  
 Pro Ala Arg  
 35

<210> 30  
 <211> 34  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 30  
 Lys Val Ser Gly Lys Gly Gln Gln Gln Gln Gly Gln Thr Val Thr Lys  
 1 5 10 15  
 Lys Ser Ala Ala Glu Ala Ser Lys Lys Pro Arg Gln Lys Arg Thr Ala  
 20 25 30  
 Thr Lys

<210> 31  
 <211> 26  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 31  
 Gly Arg Arg Gly Pro Glu Gln Thr Gln Gly Asn Phe Gly Asp Gln Asp  
 1 5 10 15  
 Leu Ile Arg Gln Gly Thr Asp Tyr Lys His  
 20 25

<210> 32  
 <211> 34  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 32  
 His Ile Asp Ala Tyr Lys Thr Phe Pro Pro Thr Glu Pro Lys Lys Asp  
 1 5 10 15  
 Lys Lys Lys Lys Thr Asp Glu Ala Gln Pro Leu Pro Gln Arg Gln Lys  
 20 25 30  
 Lys Gln

<210> 33  
 <211> 35  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 33  
 Gln Lys Lys Gln Pro Thr Val Thr Leu Leu Pro Ala Ala Asp Met Asp  
           1                  5                  10                  15  
 Asp Phe Ser Arg Gln Leu Gln Asn Ser Met Ser Gly Ala Ser Ala Asp  
                   20                  25                  30  
 Ser Thr Gln  
           35

<210> 34  
 <211> 81  
 <212> PRT  
 <213> SARS coronavirus

<400> 34  
 Ala Met Gln Met Ala Tyr Arg Phe Asn Gly Ile Gly Val Thr Gln Asn  
           1                  5                  10                  15  
 Val Leu Tyr Glu Asn Gln Lys Gln Ile Ala Asn Gln Phe Asn Lys Ala  
                   20                  25                  30  
 Ile Ser Gln Ile Gln Glu Ser Leu Leu Thr Val Leu Pro Pro Leu Leu  
                   35                  40                  45  
 Thr Asp Asp Met Ile Ala Ala Tyr Thr Ala Ala Leu Val Ser Gly Thr  
           50                  55                  60  
 Ala Thr Ala Gly Trp Thr Phe Gly Ala Gly Ala Ala Leu Gln Ile Pro  
           65                  70                  75                  80  
 Phe

<210> 35  
 <211> 71  
 <212> PRT  
 <213> SARS coronavirus

<400> 35  
 Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys Tyr Phe Lys Asn His  
           1                  5                  10                  15  
 Thr Ser Pro Asp Val Asp Leu Gly Asp Ile Ser Gly Ile Asn Ala Ser  
                   20                  25                  30

Val Val Asn Ile Gln Lys Glu Ile Asp Arg Leu Asn Glu Val Ala Lys  
                   35                                  40                                  45

Asn Leu Asn Glu Ser Leu Ile Asp Leu Gln Glu Leu Gly Lys Tyr Glu  
                   50                                  55                                  60

Gln Tyr Ile Lys Trp Pro Trp  
                   65                                  70

<210> 36

<211> 72

<212> PRT

<213> SARS coronavirus

<400> 36

Pro Glu Leu Asp Ser Phe Lys Glu Glu Leu Asp Lys Tyr Phe Lys Asn  
                   1                                  5                                  10                                  15

His Thr Ser Pro Asp Val Asp Leu Gly Asp Ile Ser Gly Ile Asn Ala  
                                   20                                  25                                  30

Ser Val Val Asn Ile Gln Lys Glu Ile Asp Arg Leu Asn Glu Val Ala  
                   35                                  40                                  45

Lys Asn Leu Asn Glu Ser Leu Ile Asp Leu Gln Glu Leu Gly Lys Tyr  
                   50                                  55                                  60

Glu Gln Tyr Ile Lys Trp Pro Trp  
                   65                                  70

<210> 37

<211> 71

<212> PRT

<213> Human coronavirus

<400> 37

Pro Asn Leu Pro Asp Phe Lys Glu Glu Leu Asp Gln Trp Phe Lys Asn  
                   1                                  5                                  10                                  15

Gln Thr Leu Val Ala Pro Asp Leu Ser Leu Asp Tyr Ile Asn Val Thr  
                                   20                                  25                                  30

Phe Leu Asp Leu Gln Asp Glu Met Asn Arg Leu Gln Glu Ala Ile Lys  
                   35                                  40                                  45

Val Leu Asn Gln Ser Tyr Ile Asn Leu Lys Asp Ile Gly Thr Tyr Glu  
                   50                                  55                                  60

Tyr Tyr Val Lys Trp Pro Trp  
                   65                                  70

<210> 38

<211> 71

<212> PRT

<213> Bovine coronavirus

&lt;400&gt; 38

Pro Asn Leu His Asp Phe Lys Glu Glu Leu Asp Gln Trp Phe Lys Asn  
 1 5 10 15

Gln Thr Ser Val Ala Pro Asp Leu Ser Leu Asp Tyr Ile Asn Val Thr  
 20 25 30

Phe Leu Asp Leu Gln Asp Glu Met Asn Arg Leu Gln Glu Ala Ile Lys  
 35 40 45

Val Leu Asn Gln Ser Tyr Ile Asn Leu Lys Asp Ile Gly Thr Tyr Glu  
 50 55 60

Tyr Tyr Val Lys Trp Pro Trp  
 65 70

&lt;210&gt; 39

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Mouse hepatitis virus

&lt;400&gt; 39

Pro Asn Leu Pro Asp Phe Lys Glu Glu Leu Asp Lys Trp Phe Lys Asn  
 1 5 10 15

Gln Thr Ser Ile Ala Pro Asp Leu Ser Leu Asp Phe Glu Lys Leu Asn  
 20 25 30

Val Thr Phe Leu Asp Leu Thr Tyr Glu Met Asn Arg Ile Gln Asp Ala  
 35 40 45

Ile Lys Lys Leu Asn Glu Ser Tyr Ile Asn Leu Lys Glu Val Gly Thr  
 50 55 60

Tyr Glu Met Tyr Val Lys Trp Pro Trp  
 65 70